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WASHINGTON, DC 20005

EXAMINER
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SCHLIENTZ, NATHAN W

ART UNIT	PAPER NUMBER
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1616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/712,990

Applicant(s)

RAMIREZ ET AL.

Examiner

Nathan W. Schlientz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 27 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 34-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 and 38-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> .                                  | 6) <input type="checkbox"/> Other: _____                          |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :5/14/06, 8/3/04, 10/22/04, 3/22/05, 11/7/05, 9/14/06.

### **DETAILED ACTION**

The examiner for your application in the USPTO has changed. Examiner Nathan Schlientz can be reached at 571-272-9924.

#### ***Acknowledgement of Receipt***

In the Official action dated 27 July 2007, the Examiner inadvertently excluded Claims 2 and 3 from the election of species requirement. Claims 1 and 4 should have read Claims 1-4, and Claims 1 and 5 should have read Claims 1-3 and 5, because Claims 2 and 3 are drawn to the same plurality of species as mentioned in Claim 1. The Applicant's Response to the Election/Restriction requirement mailed 27 July 2006 has been received. The Applicant's election of species as listed on page 10 of the aforementioned Response is acknowledged. Applicant's traversal of the species election requirement as it applies to Claims 1 and 4, 11-13, and 28 and 29 on the grounds that only one species is claimed in each of these three sets of claims, is duly noted. However, Claims 1-3 are drawn to a plurality of aromatic alcohols and cyclic carboxylic acids; Claims 11-12 are drawn to a plurality of sequestering agents; and Claim 28 is drawn to a plurality of hydrotopes. Claims 4, 13, and 29 are dependent from Claims 1, 11, and 28, respectively, and are thus included in the election of species requirement. The Election/Restriction requirement has been established in the aforementioned Official Action, and is deemed proper. Therefore, the Restriction requirement is made FINAL.

### ***Status of Claims***

The amendment to the claims, filed 27 October 2006, has been received. Claims 1-41 are pending. Claims 34-37 have been withdrawn as being drawn to a non-elected invention. Claims 1-33 and 38-41 have been examined on the merits, in so far as they are drawn to the elected species. No claim is allowed at this time.

### ***Information Disclosure Statement***

The Information Disclosure Statement filed 14 May 2004 contains documents that are not in the English language. The examiner has considered documents EP0582359A1, EP0582360A1, DE3229097A1, DE3543500A1, and DE2629081A1 to the extent the examiner understands German.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1-33 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 19 and 20 of U.S. Patent No. 6,803,057. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to an aqueous disinfecting solution comprising or consisting essentially of  $H_2O_2$ , a phosphorus-based acid, an anionic surfactant, and either a mono or polycarboxylic acid or an alcohol comprising 1-6 carbon atoms. Many of the phosphorus-based acid and anionic surfactant compounds are overlapping in scope, and some of the compounds are identical (i.e. phosphoric acid, HEDP, and dodecyl benzene sulfonic acid). Although the instant application is drawn to a composition comprising either furan-2-carboxylic acid or benzyl alcohol, the '057 patent discloses their solution comprising a mono or polycarboxylic acid or an alcohol comprising one to six carbon atoms. The furan-2-carboxylic acid is an obvious variant of monocarboxylic acid, and benzyl alcohol is an obvious variant of an alcohol containing 1 to 6 carbon atoms. The instant application and the '057 patent both contain additional overlapping ingredients, such as corrosion inhibitors, hydrotopes, nonionic surfactants, sequestering agents, etc. Accordingly, the scope of the copending claims overlap and thus they are obvious variants of one another.

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2. Claims 1-6, 14-22, 27 and 30-33 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 24-32, 34, 35, 37-46, 48, 49 and 51 of copending Application No. 11/518,188. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to an aqueous disinfecting solution comprising or consisting essentially of  $H_2O_2$ , benzyl alcohol, and an anionic surfactant. Many of the anionic surfactant compounds are overlapping in scope, and some of the compounds are identical (i.e. alkyl diphenyl oxide sulfonic acids or alkali metal salts thereof, and dodecyl benzene sulfonic acid). Accordingly, the scope of the copending claims overlap and thus they are obvious variants of one another.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. Claims 1-22, 27 and 30-33 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-6, 8-11, 15, 16, 18 and 19 of copending Application No. 11/128,223. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to an aqueous disinfecting solution comprising  $H_2O_2$ , and a cyclic carboxylic acid, and optionally benzyl alcohol, surfactants, glycols, and buffers. Many of the cyclic carboxylic acid and optional ingredient compounds are overlapping in scope, and some of the compounds are identical (i.e. 2-furan carboxylic

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acid, phosphoric acid, HEDP, etc.). Accordingly, the scope of the copending claims overlap and thus they are obvious variants of one another.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-4, 11-20, 27, 30-33, 38, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by International Application Publication No. WO 99/52360 (hereinafter Serego Allighieri et al.).

Serego Allighieri et al. disclose specific examples wherein 1.0 to 1.5 wt.% hydrogen peroxide, 0.8 wt.% benzyl alcohol, 0.3 wt.% butyldiglycol (carbitol) and 0.03 wt.% salicylic acid are present (Examples IV, V and VI on page 24). Such examples, even though they do not explicitly contain the elected anionic surfactants under examination here, nonetheless convey the prior art composition ingredients and percentage of said ingredients. For example, given the broadly disclosed anionic surfactant range of 0.05-20 wt.%, the specific example of 0.8 wt.% for one such anionic surfactant, C10 alkyl sulfate, clearly teaches similar weight percentages for Serego Allighieri's other similar anionic surfactants, viz. C<sub>9-20</sub> linear alkylbenzenesulfonates.



Therefore, for aforementioned reasons, Serego Allighieri et al. fully anticipate all the limitations of the instant claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1,148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
1. Claims 5, 39 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serego Allighieri et al. in view of U.S. Patent No. 5,387,605 (hereinafter Beilfuss et al.).

**Applicant claims:**

The Applicants' claims are drawn to an aqueous disinfecting solution comprising from 0.01 to 6 wt.% of H<sub>2</sub>O<sub>2</sub> and from 0.01 to 8 wt.% of at least one component selected from cyclic carboxylic acids or aromatic alcohols. In particular, the cyclic carboxylic acid

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is chosen from 2-furan carboxylic acid, benzoic acid and salicylic acid, and the aromatic alcohol is benzyl alcohol. Claims 32 and 33 further limit the solution to be a concentrated solution that may be diluted with water to provide the usable solution.

**Determination of the scope and content of the prior art**

**(MPEP 2141.01)**

Serego Allighieri et al. teach disinfecting compositions which contain an effective amount of a disinfecting material such as hydrogen peroxide (page 3, line 24 through page 4 line 2; and page 4, lines 17-19). Preferably, 0.5-10 wt.% of the peroxide is taught (page 5, lines 7-10). Serego Allighieri et al. further teach solvents such as benzyl alcohol, methanol, ethanol and isopropyl alcohol to be present in the composition from 1-7 wt.% or up to 15 wt.% (page 19, lines 28-29 and 34-36). Serego Allighieri et al. further teach suitable anionic surfactants at 0.05-20 wt.%, wherein these include C<sub>9-20</sub> linear alkylbenzenesulfonates (page 12, lines 10-14; and page 17, lines 6-9). Serego Allighieri et al. further teach chelating agents at 0.002 to 1.5 wt.%, wherein these include etidronic acid (1-hydroxyethylidene-bisphosphonic acid or HEDP) and salicylic acid (page 17, lines 19-20; page 18, lines 21-22 and 29-32; and Examples I-VII on page 24). Serego Allighieri et al. further teach radical scavengers at 0.01 to 1 wt.%, wherein these include benzoic acid (page 19, lines 4 and 11-14). Serego Allighieri et al. further teach dilution from a more concentrated form (page 23, lines 12-16).

**Ascertainment of the difference between the prior art and the claims****(MPEP 2141.02)**

Serego Allighieri et al. do not teach their disinfecting solution comprising 2-furan carboxylic acid. However, Beilfuss et al. teach a solution for combating mycobacteria comprising a carboxylic acid (abstract). Beilfuss et al. further teach the preferred carboxylic acids include furan-2-carboxylic acid, benzoic acid, and salicylic acid (column 2, lines 30-33). Beilfuss et al. further teach the ready-for-use solution has a pH of up to 7, more preferably up to 5 and in particular preference up to 4 (column 2, lines 55-56). Beilfuss et al. further teach the concentration of carboxylic acids is in the region of 0.01 to 8 wt.%, preferably 0.1 to 6 wt.%, more preferably 0.2 to 4 wt.% and in particular 0.5 to 2 wt.% (column 2, lines 58-63). Beilfuss et al. further teach H<sub>2</sub>O<sub>2</sub> as an active ingredient that is compatible with the carboxylic acids (column 3, lines 12-14 and 18). Beilfuss et al. further teach the combination of carboxylic acids with other active ingredients, such as H<sub>2</sub>O<sub>2</sub>, may result in a broader spectrum of activity. Beilfuss et al. further teach the disinfecting composition may be ready-for-use or in the form of concentrates (abstract; column 2, lines 47-53).

**Finding of *prima facie* obviousness****Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one skilled in the art at the time of the invention to incorporate 2-furan carboxylic acid into the disinfecting solution of Serego Allighieri et al. because Beilfuss et al. teach the combination of 2-furan carboxylic acid with H<sub>2</sub>O<sub>2</sub> may result in a broader spectrum of activity. Such would have

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been obvious in the absence of evidence to the contrary because it is generally prima facie obvious to use in combination two or more ingredients that have previously been used separately for the same purpose to form a third composition useful for that same purpose. The idea of combining them flows logically from their having been taught individually in the prior art. *In re Kerkhoven* 626 F.2d 646, 850, 205 USPQ 1069, 1072 (CCPA 1980).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

2. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serego Allighieri et al.

**Applicant claims:**

The Applicant claims a disinfecting solution comprising H<sub>2</sub>O<sub>2</sub>, benzyl alcohol or 2-furan carboxylic acid, and from 0.005 to 3 wt.%, from 0.01 to 3 wt.%, or from 0.01 to 1 wt.% of a C<sub>6-10</sub> alkyl, 3.5 moles of ethylene oxide alcohol ethoxylate.

**Determination of the scope and content of the prior art**

**(MPEP 2141.01)**

The teachings of the primary reference by Serego Allighieri et al. have been fully discussed above, and the discussion there is incorporated herein by reference for sake

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of clarity and brevity. In summary, Serego Allighieri et al. teach a disinfecting solution comprising  $\text{H}_2\text{O}_2$  and optionally benzyl alcohol, HEDP,  $\text{C}_{9-20}$  alkyl benzene sulfonic acid, glycol, benzoic acid and salicylic acid. Serego Allighieri et al. further teach several fatty alcohol ethoxylate nonionic surfactants suitable for use in their invention having an HLB below 16, preferably below 15, more preferably below 12, and most preferably below 10, which have been shown to provide good grease cutting properties (page 11, line 35 through page 12, line 8).

**Ascertainment of the difference between the prior art and the claims**

**(MPEP 2141.02)**

Serego Allighieri et al. do not teach their disinfecting solution comprising  $\text{C}_{6-10}$  alkyl, 3.5 moles of ethylene oxide alcohol ethoxylate. However, the nonionic surfactants used by Serego Allighieri et al. are structurally and functionally similar to  $\text{C}_{6-10}$  alkyl, 3.5 moles of ethylene oxide alcohol ethoxylate. Therefore, the nonionic surfactants are obvious variants of one another and not patentably distinct.

**Finding of *prima facie* obviousness**

**Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one skilled in the art at the time of the invention to use a  $\text{C}_{6-10}$  alkyl, 3.5 moles ethylene oxide alcohol ethoxylate as the nonionic surfactant in the composition of Serego Allighieri et al. because the  $\text{C}_{6-10}$  alkyl, 3.5 moles ethylene oxide alcohol ethoxylates are obvious variants to the alcohol ethoxylates described in Serego Allighieri et al.

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From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

3. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serego Allighieri et al. in view of U.S. Patent No. 6,309,470 (hereinafter Schulhoff et al.).

**Applicant claims:**

The Applicant claims a disinfecting solution comprising  $H_2O_2$ , benzyl alcohol or 2-furan carboxylic acid, and an amount of phosphoric acid effective to buffer the solution to a pH of from 0.6 to 7.

**Determination of the scope and content of the prior art**

**(MPEP 2141.01)**

The teachings of the primary reference by Serego Allighieri et al. have been fully discussed above, and the discussion there is incorporated herein by reference for sake of clarity and brevity. In summary, Serego Allighieri et al. teach a disinfecting solution comprising  $H_2O_2$  and optionally benzyl alcohol, HEDP,  $C_{9-20}$  alkyl benzene sulfonic acid, glycol, benzoic acid and salicylic acid. Serego Allighieri et al. further teach a pH buffer, such as citric acid or lactic acid, that is capable of regulating the pH of the composition (page 20, lines 23-35).

**Ascertainment of the difference between the prior art and the claims****(MPEP 2141.02)**

Serego Allighieri et al. do not teach the pH buffer to be phosphoric acid. However, Schulhoff et al. teach phosphoric acid in combination with hydrogen peroxide is a suitable cleaning/disinfecting solution (column 2, lines 28-32). Schulhoff et al. further teach the composition loosens the adhesive bond between the deposits and the surface allowing for the removal thereof (column 3, lines 49-52).

**Finding of *prima facie* obviousness****Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one skilled in the art at the time of the invention to use phosphoric acid in the hydrogen peroxide solution of Serego Allighieri et al. to aid in the solutions ability to clean/disinfect because the prior art teaches the combination is known to be effective at cleaning and disinfecting surfaces.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

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4. Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serego Allighieri et al. in view of U.S. Patent No. 5,900,256 (hereinafter Scoville, Jr. et al.).

**Applicant claims:**

The Applicant claims a disinfecting solution comprising H<sub>2</sub>O<sub>2</sub>, benzyl alcohol or 2-furan carboxylic acid, and from 0.01 to 0.1 wt.% of 1,2,3-benzotriazole.

**Determination of the scope and content of the prior art**

**(MPEP 2141.01)**

The teachings of the primary reference by Serego Allighieri et al. have been fully discussed above, and the discussion there is incorporated herein by reference for sake of clarity and brevity. In summary, Serego Allighieri et al. teach a disinfecting solution comprising H<sub>2</sub>O<sub>2</sub> and optionally benzyl alcohol, HEDP, C<sub>9-20</sub> alkyl benzene sulfonic acid, glycol, benzoic acid and salicylic acid.

**Ascertainment of the difference between the prior art and the claims**

**(MPEP 2141.02)**

Serego Allighieri et al. do not teach their disinfecting solution comprising the corrosion inhibitor 1,2,3-benzotriazole. However, Scoville, Jr. et al. teach hydrogen peroxide compositions are known to be corrosive to metal and inherently unstable, thus requiring a corrosion inhibitor (column 1, lines 27-31). Scoville, Jr. et al. further teach a composition comprising from about 0.5 to about 50 wt.% H<sub>2</sub>O<sub>2</sub>, more preferably 6-9 wt.%, and from about 0.1 to about 30 wt.% of 1,2,3-benzotriazole, more preferably from



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about 0.1 to about 3 wt.% (column 2, lines 40-46; column 3, lines 19-25 and 32-35; column 4, lines 7-9 and 52-56; and Claims 1 and 8).

**Finding of *prima facie* obviousness**

**Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one skilled in the art at the time of the invention to incorporate from about 0.1 to about 3 wt.% of the corrosion inhibitor 1,2,3-benzotriazole into the solution of Serego Allighieri et al. because H<sub>2</sub>O<sub>2</sub> is known to be corrosive to metals and the corrosion inhibitor allows the H<sub>2</sub>O<sub>2</sub> solution to be used in disinfecting metal surfaces.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

5. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serego Allighieri et al. in view of European Patent No. 0 351 772 (hereinafter McMillen).

**Applicant claims:**

The Applicant claims a disinfecting solution comprising H<sub>2</sub>O<sub>2</sub>, benzyl alcohol or 2-furan carboxylic acid, and from 0.01 to 15 wt.% sodium xylene sulfonate.

**Determination of the scope and content of the prior art****(MPEP 2141.01)**

The teachings of the primary reference by Serego Allighieri et al. have been fully discussed above, and the discussion there is incorporated herein by reference for sake of clarity and brevity. In summary, Serego Allighieri et al. teach a disinfecting solution comprising H<sub>2</sub>O<sub>2</sub> and optionally benzyl alcohol, HEDP, C<sub>9-20</sub> alkyl benzene sulfonic acid, glycol, benzoic acid and salicylic acid.

**Ascertainment of the difference between the prior art and the claims****(MPEP 2141.02)**

Serego Allighieri et al. teach several alkyl sulfonate surfactants suitable for use in their invention (page 11, line 35 through page 12, line 8), but they do not teach their disinfecting solution comprising sodium xylene sulfonate. However, McMillen teaches surfactants are useful for stabilizing hydrogen peroxide against decomposition (page 2, lines 47-48). McMillen further teaches suitable stabilizers of H<sub>2</sub>O<sub>2</sub> includes sodium xylene sulfonate at a concentration of 1 and 5 wt.% (Claim 4; and page 5, lines 33-37).

**Finding of *prima facie* obviousness****Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one skilled in the art at the time of the invention to incorporate sodium xylene sulfonate into the disinfecting solution of Serego Allighieri et al. for the purposes of stabilizing the H<sub>2</sub>O<sub>2</sub> solution from decomposition as taught by McMillen.

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From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

#### **Contact Information**

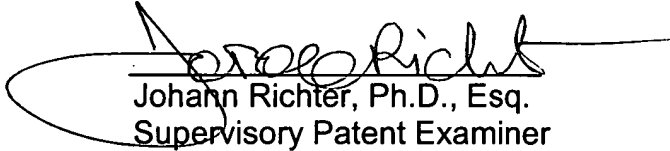
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan W. Schlientz whose telephone number is 571-272-9924. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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